



BUSINESS MODEL INNOVATION IN NIGERIAN HIGHER EDUCATION INSTITUTIONS

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Abstract:

This paper explores business model innovation that aims to innovate the Nigerian higher education sector. A focus group and semi-structured interviews among higher education Nigerian academics, students and graduates are used to explore the new business model for Nigerian higher education. The study found that, to achieve efficient and effective innovation, Nigerian higher education institutions need to collaborate with industry, professionals and other stakeholders, such as company management and government policy-makers, to transform the entire higher education sector. The study found that curriculum design and delivery needs to blend theoretical understanding and real-life experience from industry with social cultural influences related to the Nigerian environment. This will enable lecturers to organise their teaching and assessments in such a way that students can learn around theoretical and practical study themes. The curriculum design and delivery needs to link the core ideas to challenging problems in society, nationally and globally. Hence, this approach will support business start-ups and social entrepreneurship, which resolve key societal problems. The study suggests that higher education executives, directors, deans, heads of department, and even individual academics need to emulate innovative business managers, to create value-adding products and services from innovative research and academic work. This will help the Nigerian higher education institutions to develop and offer new products and services to different customer segments, differentiated according to customer needs.

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1. Introduction

Business model innovation is becoming an increasingly important priority for managers in terms of creating new values for existing and prospective customers and achieving superior performance (Baden-Fuller and Morgan, 2010; Esslinger, 2011). Several studies have shown that firms that have widened their operating margins faster than their competitors have placed twice as much emphasis on business model innovation compared with underperformers (IBM, 2008). Business model innovation is important for new and existing firms, as it enhances new businesses' chance of survival and enhances the competitiveness of existing firms (Gorge and Bock, 2011; Saebi and Foss, 2015).

Despite the importance of a business model innovation concept in meeting customers' unmet needs and achieving overall organisational performance, higher education institutions (HEIs) have yet to regard this as a crucial factor within their own operations in the 21st century. Universities engage in a business model but not explicitly, in a way that would capture and create value in various areas of the university management system (Xuemei and Bill, 2014). This may be linked to the unpopularity of the concept within academic circles, where frequently it has been interpreted as a euphemism for cost reduction and profit maximisation, operating to the detriment of students, academics and the wider community (Alderman, 2010; Burrows, 2012; Katopes, 2009).

"A more holistic perspective on the commercial and other activities of universities as reflected in business models could be significant in making the value proposition for various stakeholders explicit by communicating the signature strengths of individual university to their current and potential students, as well as to other stakeholders in industry, government and the wider community."

(Massingham and Herrington, 2006 cited in Xuemei and Bill, 2014: 933)

HEIs face daunting challenges regarding the long-established business model. The cost of providing higher education continues to rise while the sources of funding have eroded. With the traditional streams withering away at such a great speed, academics and HEIs are now being forced to consider not only how to reduce costs but preferably also how to create new revenue that would equip them with sustained funding to deliver their mission. This means that they must rethink the design of new

business models (Lowendahl, 2013), but business model innovation is often difficult to implement within the existing institutions due to the current cost structures, established processes and dominant status quo mindset (Lowendahl, 2013).

Sund et al. (2016) argue that an established business will face tension if it attempts to discover entirely new business models, and the management will need to handle these tensions carefully, to identify and implement the new business models successfully. They highlight three key areas that may cause tension within an existing business when designing business model innovation: the management mistakenly settling too quickly on a strategy and structure for the new business, a failure to balance top management support with experimentation, and failing to anticipate a power struggle for resources.

Nigerian HEIs should rethink who are their customers, suppliers, investors and channels are to whom they can deliver both new and existing services. It is about creating new business models for HEIs based on a business model canvas framework developed by Osterwalder and Pigneur (2010). The business model canvas highlights nine building blocks: customer segmentation, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure. Hence, the key objectives of this study are to explore the business model innovation characteristics in HEIs, and how Nigerian HEIs can generally innovate their offerings compared to the traditional approaches and those adopted by their counterparts overseas.

1.1 The Nigerian higher education context

According to the Federal Ministry of Education (2004:30), Nigerian higher education encompasses *“post-secondary or tertiary education that is given after secondary education in colleges of education, monotechnics, polytechnics, universities and those institutions offering correspondence courses”*. Nigeria has a total of 128 universities, consisting of 40 federal government universities, 38 state government-owned universities, and 50 private universities that are owned by individuals and organisations. Other HEIs that are not universities include 67 polytechnics, and 92 colleges of education within the 36 states and the Federal Capital Territory of Nigeria (Ogunkunle and Adekola, 2013).

These institutions face many challenges, including: poor, unstable governance, a shortage of faculty staff and poor faculty development, inadequate leadership management, problems with quality and relevance, weak research and innovation, poor infrastructure and facilities, financial austerity, and an incapacity to diversify funding resources (Sy Habib, 2003; Damtew and Altbach, 2004; Sichone, 2006; Teichler, 2004; Knight, 2013).

Many Nigerian HEIs lack staff development programmes such as continual training and staff re-training (Ezepue and Ochinanwata, 2015). This lack of staff training programmes has continued to reduce the quality of tertiary education (Asiyai and Oghuvbu, 2009). It is observed that Nigerian lecturers use out-dated notes to teach their students for years without updating them to take note of the current global trends or the opportunities and challenges in society. Adeogun (2006) argues that an employee who does not undergo continuous training in order to acquire new skills and knowledge on his/her field usually becomes irrelevant to an organisation.

These challenges have affected the higher education offerings, such as student research productivity (products and services). The consequence of the weak research within Nigerian HEIs has had a devastating effect on the country, as it is not supporting local and national economic development. The Federal Republic of Nigeria (2004) stated that the goals of Nigerian higher education include:

- Contributing to national development through high level relevant manpower training
- Developing and inculcate proper values for the survival of the individual and society
- Developing the intellectual capability of individuals to understand and appreciate their local and external environment
- Acquiring both physical and intellectual skills which will enable individuals to become self-reliant and useful members of the society
- Promoting and encourage scholarship and community service
- Forging and cement national unity
- Promoting national and international understanding and interaction

It has proved challenging to implement and execute the above goals within the Nigerian higher education sector, because the Nigerian government and Ministry of Education have failed to devise a new business model and strategic roadmap for achieving these various objectives. It can be argued that the above goals are just simple ideas that the government has thought up without devising any plan about how to achieve them. The main problem is that the higher education model, imported from Europe and America, failed to contextualise and incorporate Nigeria's social cultural and business environment.

The study is organised as follows. Section 2 provides some background on the business model and business model innovation, the higher education business model and innovation in higher education. Section 3 describes the methodology and the data sources. Section 4 displays the results of the semi-structured and focus group interviews with Nigerian higher education personnel, students and graduates. Sections 5 and 6 discuss the results and conclusion.

2. Background

2.1 Business model

Management research has demonstrated the importance of business models for value creation and firm performance (Magretta, 2002 Markides and Charitou 2004; Wikstorm et al., 2010), and how these are directly associated with transaction governance (Maddigan, 1981), value chain (Porter, 1985), value constellations (Norman and Ramirez, 1994), value streams, (Davies, 2004), revenue model (Bonnemeier, Burianek and Reichwald, 2010), novelty and efficiency (Zott and Amit, 2008), activity system perspective (Zott and Amit, 2010), supply chain (Mason and Mouzas, 2012), mission and vision (King, 2012), lock-in and complementarities (Mason and Mouzas, 2012; Zott and Amit, 2008), trial and error (King, 2012), and business model innovation (Teece, 2010; Amit and Zott, 2012). It is noteworthy that individual companies use such models to achieve their organisational mission.

Amit and Zott (2008: 1) define a business model as *"a structural template that describes the organisation of a focal firm's transactions with all of its external constituents in factor and product markets"*. According to Teece (2010:20), a business model is *"the management's hypothesis about what customers want, how they want it and what they will pay, and how an enterprise can organise to best meet customer needs, get paid well for doing so"*. The business model describes how a firm creates and delivers value to its customers. Understanding how business models are designed and developed requires researchers and management to explore core value creation based on customer preferences (Wikstrom et al., 2010; King, 2012).

The higher education business model must meet the customers' needs by understanding the students and other stakeholders' needs and ensuring that they are satisfied with excellent services that determine the success of the enterprise. Cavalcabte et al. (2011) argue that firms should explore new business models when their products or services no longer meet the customers' expectations, and when their competitors are developing more viable business models that threaten to capture a large share of the market. It is important for HEIs to continue to explore new ways of offering their services by innovating their business processes.

This happens even when firms are at their peak or their business models are still viable and making a profit. Since a firm can only benefit from a competitive advantage and enjoy customer loyalty when they design products in accordance with their customers' experience (Botha and Rensburg, 2010), understanding customer preferences is a vital way to achieve a sustainable business model, and offering customer centric-products enables firms to maintain their competitive advantage.

2.2 Business model in higher education

The recent development of business model research is drastically increasing in business and management studies, as it underpins the success of all types of business, including HEIs. The history of the higher education business model dates back many decades, including the Humboldtian (German), Napoleonic (French), and Anglo-Saxon (British) models. These three models spread around the world during the colonial era, and during the nineteenth and twentieth centuries (Arthur and Little, 2010).

Many countries' higher education systems around the world have integrated different elements and features of the above three models to drive their higher education system (Gellert, 1993b; Sam and van der Sijde, 2014). Xuemei and Bill (2014) identify seven important elements that are crucial for building and understanding the HEI business model in complex and dynamic environments. These elements include stakeholders and management, intangible resources and capabilities, value proposition, cost structure, revenue model, distribution channel, and complexity and sustainability. These features originated from the nine elements of the business model canvas posited by Osterwalder and Pigneur (2010).

The more recent Massively Open Online Courses (MOOCs) phenomenon has led to an extensive discussion of new business models in higher education (Yuan, Powell and Oliver, 2014; Burd, Smith and Reisman, 2015). Dellarocas and Van Alstyne (2013) *"describe a framework for organising MOOC business models' that identifies potential payers (states, students, employers, sponsors and others) and potential products or services they might pay for (course content, data and analytics, student labour and complementary services)"*. Most of the research on the MOOC business models focuses mainly on the financial component (Kalman, 2016).

The seven elements of the higher education business model indicated above, however, miss several crucial elements such as *"dissegmentation and finer segmentation"*. This approach is the process of defining the existing customers and going beyond the existing customers' demands to create noncustomers in an industry (Kim and Mauborgne, 2015). The above insights illustrate why the traditional higher education business model lacks the potential to create products and services for different customer segments. HEIs need to rethink not only how to reduce their costs, but also how to create other sources of revenue through launching start-ups and spin-offs within their institutions (Ezepue and Ochinanwata, 2015). Universities can create spin-offs within an existing higher education business model or within a new business model if the new offering is different from the university's core products and services (students and research). In a nutshell, they need a new business model that will enable them to create different offerings for a wider group of stakeholders.

2.3 Business model innovation

The term “*business model innovation*” has been referred to “*disruptive business models*” (Markides and Oyon, 2010), re-inventing business models (Johnson et al., 2008), business innovation (Sawhney et al., 2011) and renewal/revamping business models (Wirtz et al., 2010). According to Massa and Tuchi (2013), business model innovation terminology has been used in two distinct contexts, such as the subject of innovation and the advent of novel technologies.

“Exploring new business models is a recognised way for mature companies to renew their business’ competitive advantage. Companies explore new value propositions, deploy value propositions in new segments, change the value change or experiment with alternative revenue models, all in a search for a different logic for value creation and capture”.

(Sund, et al., 2016)

Business model innovation may be defined as a new configuration of what is done in the company and how it is done, in order to provide a new value proposition for customers. In other words, it is the new or significantly improved system of activities required to generate a new value proposition (Souto, 2015:145). Christensen et al. (2016) state that many businesses that have attempted business model innovation has failed and that, to execute it well, executives need to understand how the models are developed through predictable stages over time, and then apply that experience when making the key decisions to discover new business models. To execute it correctly, HEI executives require an ability to make companies resilient in the face of change and to create growth that is unbounded by the limits of the existing services.

Start-ups and new businesses take advantage of business model innovation by experimenting and testing the new business model because flexibility is associated with new and small businesses. Established businesses such HEIs can take advantage of business model innovation by establishing spin-offs within HEIs and changing the entire organisational processes. This is because, when establishing business organisations, the ultimate nature of the business models will emerge as the business experience accumulates. Hence, HEIs must adopt an experimental and adaptive approach in order to discover, calibrate and validate a successful new business model (King, 2012).

However, if two business models are used in HEIs simultaneously, they may contradict each other and conflict with the entire management processes. A careful examination of the relationship and links between the two products or services will give organisations a better idea about how to combine the business models or introduce a separate business unit (Wikstorm et al., 2010; King, 2012). Separation is needed when

new markets introduce trade-offs and conflicts, and no separation is required when the new markets are very similar to the existing business, as there will be less conflict to manage (Markides and Charitou, 2004).

There are several factors affect decision to adapt business model innovation which includes total opportunity costs, and the possible cannibalisation of a company's existing products and services and its core capabilities (Chesbrough, 2010; Christensen, 1997). Other barriers to business model innovation include cognitive and organisational inertia and internal resistance (Tecee, 2010; Sosna et al., 2010; Zott et al., 2010). Recent studies highlight several key drivers of business model innovation, which include technological change, new market entrants, globalisation, customer unmet needs (Sako, 2012), economic stability, deregulation (Casadesus-Masanell and Ricart, 2010), the role of organisational leadership, and geopolitical factors (Bock et al., 2012).

Matzler et al. (2013) identify five components for business model innovation, which include innovation, unique positioning for firms, a consistent product and service logic by the firm, appropriate value creation architecture, an effective sales and marketing logic, and a profit formula that works.

"However, organisational design and the associated organisational tensions that emerge during the process of business model exploration are not well addressed by the existing tools. Companies exploring new business models may not fully recognise that these tensions will almost inevitably emerge and may be ill-prepared to manage them. Understanding these tensions should help in managing the challenges for concurrent business models."

(Sund, Bogers, Villarroel and Foss, 2016)

2.4 Innovation in higher education

From an evolutionary economic perspective, innovation strategies underpin the organisational capabilities that give firms the ability to create new knowledge (Teece, 2007; Nelson and Winter, 1982). Innovation in higher education involves improving HEIs, and enabling graduates to implement their novel knowledge and skills in different fields, which in turn increases the productivity in different industries, economic development, and the social welfare of the citizens (Alfantookh and Bakry, 2013). Various incremental innovations have been introduced within the higher education sector over the past few decades. Recently, HEIs of all kinds have begun to offer online courses and programmes, which has changed the traditional education system around the world (Allen, Seaman and Garrett, 2007; Callaway, 2012). This enables HEIs to pursue customers (students) from all over the world in order to seek a large market share without needing to be physically present in those countries. However, some of the traditional HEIs may be unable to adopt a full online programme

because of the difficulties related to changing the existing organisational structure. The traditional HEIs might complement their programmes by offering certain e-learning features and facilities; for example, blogs, forums, file sharing, and e-libraries can be used to facilitate out-of-class discussions and thus enhance the classroom-based teaching (Callaway, 2012).

Several studies conducted on the popularity of online education in different regions found that the number of students taking online degrees and courses is drastically increasing all over the world. This is because online education is becoming cheaper and less time-consuming compared to the traditional education system (Allen, Seaman, and Garrett, 2007; Dykman and Davis, 2008c; Callaway, 2012). However, there are numerous disadvantages associated with online education, including the lack of physical interaction between students, and the difficulty in identifying students who sit online examinations. To address these problems, some online universities require students to attend examinations in person (Callaway, 2012).

Traditional education, on the other hand, does offer several opportunities and advantages, especially for younger students who are entering university or another type of HEI for the first time. They benefit from the traditional learning environment that provides basic academic principles and culture. This enables students to engage in direct physical contact with their fellow students and lecturers, and they can receive face-to-face guidance (Salmon, 2005; Callaway, 2012; Burd, Smith, and Reisman, 2015).

Traditional and online education offer different advantages and benefits in different countries. Developed nations are benefiting more from online education than are developing nations because of the lack of advanced technologies that are fundamentally required for online programmes. Developing countries like Nigeria and Sub-Saharan Africa can benefit from online education by adopting technology- and web-enabled tools to complement the purely traditional learning. This blended approach was recommended as a crucial way for teaching, learning and researching, and it improves the quality of education in all its forms (Choudaha, 2015). These insights are crucial because students can spend extra time directly and indirectly studying at home. This enables students to participate in online discussions and forums in order to learn from their peers and share knowledge-based resources.

Traditional classroom-based teaching offers numerous advantages, which includes lecturers presenting new material, assigned reading, class discussion and participation, face-to-face examinations, individualised tutoring, and teamwork (Dykman and Davis, 2008c; Bryant et al., 2005; Dereshiwsky, 2001). Several researchers have suggested that a blended approach can strengthen both traditional and online teaching (Chamberlin, 2001), and that hybrid learning and teaching is a crucial way to

minimise the respective weaknesses of online and traditional classroom education (Bersin, 2004; Mackay and Stockport, 2006).

Research has shown that institutions that are reluctant to offer online learning activities will find it difficult to grow and innovative institutions that marry the benefits of on-campus experience with online learning are likely to access impressive growth opportunities (Christensen and Eyring, 2011). The adoption of a blended approach will completely reform Nigerian HEIs and enable them to provide online resources for their students and lecturers around the globe.

The integration of information and communication technology (ICTs) into higher education has facilitated the internationalisation of higher education by many universities around the globe. It also provides easier access to and wider higher education resources (Grenier, 2013). The new technological advancements are helping both universities and new entrants to offer online degrees and short courses to various individuals around the world. This type of internationalisation model is low-cost compared to many other higher education internationalisation models. This enables students to acquire a degree at minimal cost compared to the traditional, campus-based educational system (Callaway, 2012; Burd, Smith, and Reisman, 2015).

2.6 Curriculum innovation

University-business collaboration (UBC) research has been receiving substantial attention recently (Abramo et al., 2011; Crespo and Dridi, 2007; Perkmann et al., 2011). It provides numerous opportunities, benefits and advantageous outcomes for both universities and businesses (Schiller and Brimble, 2009). Recently, collaboration has become a crucial way to achieve HEIs' objectives, such as co-creating and delivering the curriculum.

Collaboration between HEIs and industry in designing the curriculum and ensuring that the curriculum meets the students and industry's needs are crucial ways to achieve substantial innovation in higher education (Perkmann et al., 2011).

"Curriculum design encompasses the design of university programs, courses and related content at all levels; while curriculum delivery is understood in this context as the delivery of programs, courses, and content to students via a large range of mechanisms, such, live projects, placements and other".

(Davey et al., 2011)

HEI-industry collaboration will help graduates to meet the industry needs. HEIs need to develop an alumni network to connect people to industry who possess the practical knowledge and experience to ensure that the final curriculum meets business and the community's needs (Plewa, Galan-Muros, and Davey, 2015). Hence, there is a

need to create an alumni network platform in all HEIs that will foster direct engagement and communication between industry practitioners and HEIs.

3. Methodology

The study uses mixed method research in order to use two sources of evidence to complement the research data and achieve the research goal. The data were collected through a focus group and semi-structured interviews. This study used different research instruments that are appropriate for ensuring the robustness, reliability and validity of the research results. These procedures include: an initial ideas tournament (a new concept in Research Methodology, which delivers face validity in the research, and maps the key research questions to the envisaged main interview questions for the study); and a focus group of stakeholders in a typical university in Nigeria.

Purposive and convenience sampling was used to select senior higher education executives and lecturers for both the focus group and semi-structured interviews. Purposive and convenience sampling techniques were adopted for this research in order to access respondents or focus group participants who meet the requirements related to experience and convenience (Kemper et al., 2003; Saunders, Lewis and Thornhill 2012; Castillo 2009; va David, 1994).

Semi-structured interviews were held with six senior HEI personnel and lecturers across all HEI types in Nigeria and four students and graduates. The University of Ilorin was chosen as the location for the focus group interview with different HEI executives such as staff from the fields of Management, Peace Studies, Language Immersion and Entrepreneurship, and Physical Sciences and Education, as well as the Director of the University Consulting Services. The interviews ranged in length from 45 to 90 minutes, with the interviews being tape-recorded and subsequently transcribed.

As noted above, the use of convenience and purposive sampling for the focus group and semi-structured interviews with academic staff and students emphasised knowledge generation, not merely theory confirmation in the study, and so requires no statistical tests. Hence, the researchers interpreted the semi-structured interview and focus group by matching them against literature-based constructs, as well as the key terms within the research objectives and questions which this paper demonstrates. Yin (2013) notes that a crucial question is how close the patterns have to be to establish a match and suggests that researchers may find patterns that are sufficiently contrasting to enable comparisons to be made with rival propositions.

In this study, the researchers are interested in propositions that confirm the relevance of the HEI innovation models and constructs in Nigeria, albeit with

contextual differences that reflect the variations in higher education practices and resource endowments between Nigeria as a developing country and the developed countries where some of the higher education business and services innovation models have already gained a foothold.

4. Results

4.1 Teaching and learning approaches

Different teaching and learning approaches, such as experiential and practical learning, case study and group learning, and e-learning and e-teaching, have been cited as the most important approaches to learning and teaching. The above teaching and learning approaches have differing impacts on student learning. Hence, there is a need for an integrated approach to teaching and learning in HEIs, which needs to be encompassed within the curriculum design and delivery.

Figure 1 below depicts the integrated teaching and learning approaches. It includes experiential and practical teaching and learning, case study, e-learning and multimedia approaches.

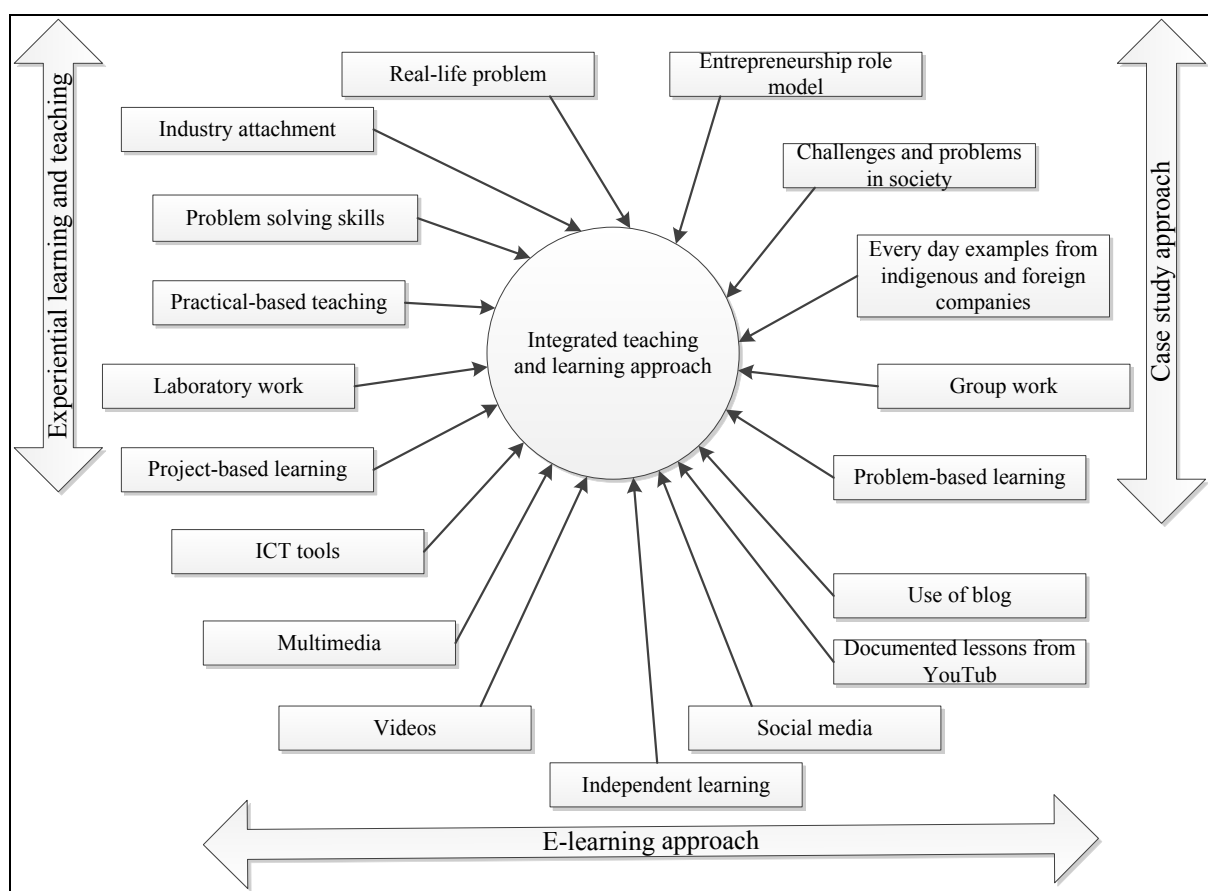


Figure 8.22: Integrated teaching and learning approach (Source: Author's Own)
Experiential/practical teaching and learning

Both lecturers and students mentioned the importance of experiential and practical learning. The experiential teaching and learning approach is very important in the 21st century because it enables students to acquire creative problem-solving skills. Both lecturers and students emphasised the importance of relating theory and practice in teaching and learning methods. The most fascinating thing cited by both the students and lecturers is the use of practical learning aids and methods, such as laboratory, problem-based learning, case-based learning and project-based learning. The use of a practical method of learning is strongly needed in the educational system. Teaching what is practicable in the industry and using real-life scenario and practical examples are crucial.

Many students stated that the experiential learning approach is missing from the curriculum, as most lecturers rely and focus on theory-based teaching. This is because of a lack of emphasis on work-related and practical skills which use theoretical knowledge, inadequate educational facilities and a lack of practical-oriented learning process among Nigerian lecturers. However, the lack of experiential and practical teaching and learning in HEIs is linked to the inadequate curriculum design and delivery. A lack of industrial experience among lecturers is one of the major barriers to experiential and practical learning, since many academics lack business and finance skills/understanding and do not know how truly to assess the potential benefit of a particular initiative that is required in industry.

The above insights lead to questions about how to enable certain academics (lecturers) who do not possess any business and practical or industrial experience to acquire such skills in order to apply different types of experiential and practical teaching methods when teaching students. This is because students need to gain generic and employability skills such as personal development planning and critical thinking skills, based on their lecturers' experience. One academic emphasised the importance of the extensive use of visiting lecturers from the fields of business and industry to aid in delivering real-life case studies and related learning material in addition to using core academic staff with extensive experience of working in or with businesses outside the university environment, as lecturers who lack practical or industrial experience can use their current research to teach and equip their students with practical knowledge and skills.

4.1.1 E-learning approach

E-learning is an innovative way for learning that may involve various approaches. Increasingly, the use of e-libraries, social media, YouTube, Twitter, Facebook and blogs is being considered an important aspect of the e-learning and teaching techniques. The above-mentioned e-learning techniques provide numerous advantages for students.

They enable students to learn from different sources and academics around the globe. The use of YouTube as a learning tool is crucial because it provides and supports educational and practical training delivery with very little effort required from lecturers, as YouTube enables students to gain experiential learning experience such as watching documented lessons on different subjects. Blogging is another crucial e-learning technique because students are expected both to contribute by posting their response to tutorial exercises as well as reading and commenting on their peers' posts. Hence, students learn and share information with one another via this e-learning platform.

4.2 Curriculum innovation

Academics and students suggest that HEIs need to collaborate with industry practitioners and professionals in designing and delivering an effective curriculum for innovative teaching and learning in the 21st century. From the lecturers' perspective, research, curricular design, learning outcomes, teaching and assessment strategies need to be linked to the problems in society. HEIs need to monitor the trends in the changing business environment in order to understand when to alter or modify the existing curricula to suit the needs of industry and socio-economic development.

For example, an innovative education curriculum in science should be driven by industrial needs, aimed at solving societal problems, through the co-designing of curricula and co-investigation of research projects with significant stakeholders in society. Nigerian HEIs need to design their degree curricula in a way that recognises portfolio careers and provides graduates with skills that will enable them to cope with the ever-changing nature of the employment landscape. Figure 2 depicts the curriculum framework. Some of the students cited the negligence of Nigerian lecturers in failing to accept corrections and feedback from students as one of the barriers to updating the curricula. Because lecturers do not prioritise students' feedback and comments, they fail to undertake research which would enable them to update their teaching notes, instead continuing to teach using out-dated notes. Lecturers and students should be co-creating knowledge because knowledge is something that is created by lifelong learning.

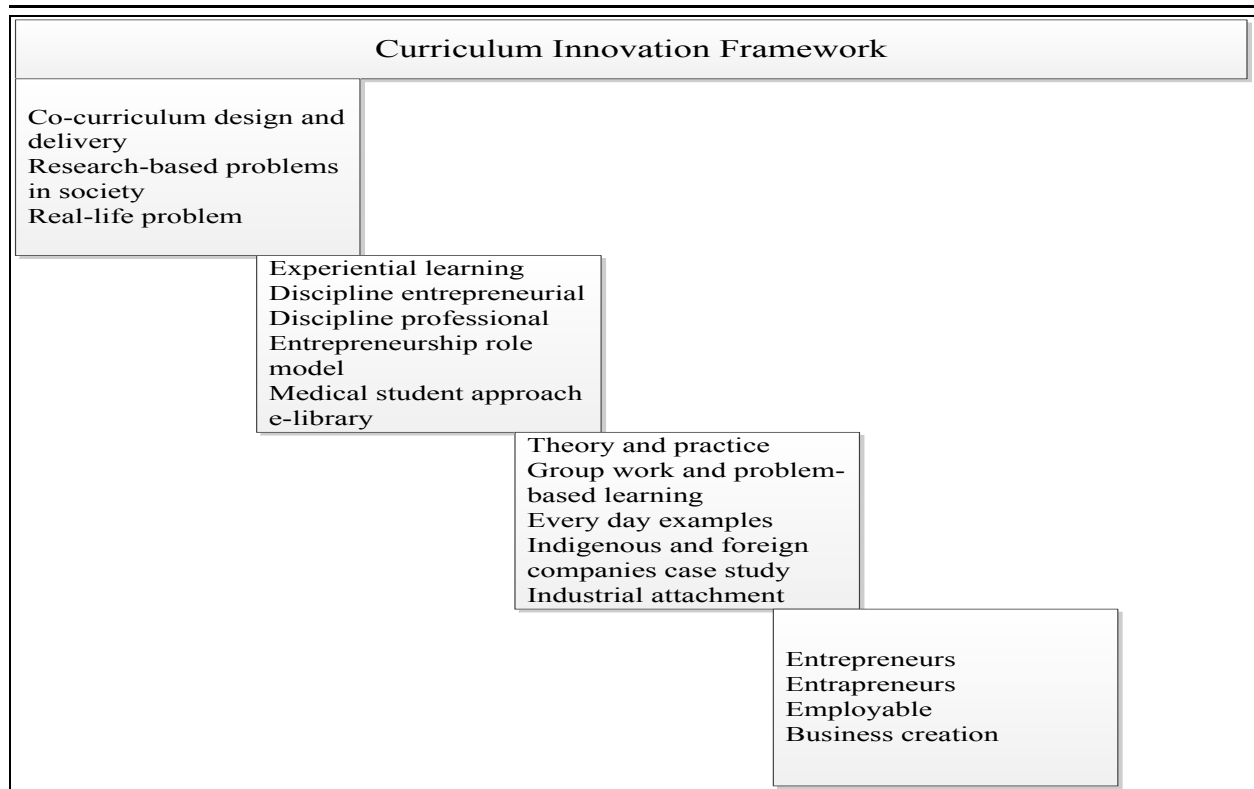


Figure 2: Curriculum innovation framework (Source Author's Own)

Curriculum innovation should be an on-going process, whereby HEIs collect students' feedback at the end of each semester and conduct a student survey to understand the students' needs and so update the existing curricular. These processes allow continuous periodic change or modification as and when necessitated by the environmental dynamics and needs, as well as an overall interest in quality assurance and international best practice. In this way, HEIs should be able to provide curricula that solve community and national problems because the students will be taught about the challenges and problems that exist in those environments.

4.2.1 Placements and industrial attachments

Basic entrepreneurship and employability skills are often required by students while on a placement or industrial attachment. However, the students and graduates mentioned their dissatisfaction with the placements and industry attachments they have undertaken during their studies, as many feel that these are failing to equip them properly with the skills required for a successful career after they leave school.

This is because students are not properly managed or supervised during industrial training programmes by the organisation that employs them. Sometimes, those organisations may not really need the students because they believe that the students have few skills, have little knowledge of their business' operations, and are unlikely to make any real contribution or have much impact on those organisations. In

this sense, the institutions should create primary knowledge that enhances the students' entrepreneurial and employability skills before they undertake the placement and industrial training. One of the lecturers cited that institutions should create a body that would follow up students to discover if there are undertaking the industrial training by providing industrial forms on which the students may state what they have learnt. This would help to check the students' activities too. The universities should create a forum that would visit the students during their placement to assess that all was progressing as desired.

The lack of a requirement for students to present their placement and industrial attachment report for grading as part of their qualification is another problem that is linked to inadequate placement and industrial attachments. Another challenge is their short duration, which tends to be only about 3 months, whereas up to 6 months or a year is needed to facilitate effective work-based learning. Excellent supervision by academic lecturers and industry mentors based on a shared set of criteria is crucial for achieving effective industrial training and placements in Nigerian HEIs.

4.3 Entrepreneurial activities within HEIs

The Nigerian students and graduates stated that entrepreneurship should be a core subject across all disciplines to enable students to acquire the skills and training needed to develop their career plan. One graduate suggested that the mass unemployment among Nigerian graduates is because they fail to develop entrepreneurial skills and training during their university course because Nigerian HEIs fail to prioritise this when designing and delivering the curriculum.

Entrepreneurship should be embedded into the core curriculum by offering both centre-led basic training in entrepreneurship and curriculum-based training on how students can use their disciplinary knowledge to become entrepreneurs. Including elements of enterprise and employability skills into the programmes is a crucial way to achieve enterprise and entrepreneurship education. However, lecturers need to possess basic entrepreneurial skills in order to teach their students practical entrepreneurial skills and mould their mind-set, because teaching entrepreneurship subjects is impossible without a basic entrepreneurial knowledge. Thus, inviting entrepreneurs to co-design and deliver the curriculum is the most effective way to achieve entrepreneurship education in Nigerian HEIs. The data reveal that it is important for lecturers to possess enterprise and entrepreneurship skills themselves, as this will help HEIs to create new offerings in addition to students as the main customer of higher education.

5. Discussion

5.1 Teaching and learning approaches

Empirical evidence shows that e-learning is a crucial element of all types of education. The findings suggest that using social media such as webinars, e-libraries, social media, YouTube, Twitter, Facebook, and blogs is an important aspect of innovative learning and teaching in modern times. This finding is supported by Callaway (2012), who opines that some e-learning tools such as blogs, forums, file sharing and e-libraries, can be used to facilitate out-of-class discussions and enhance classroom-based teaching, so a blended approach of integrating e-learning techniques with class room-based teaching and learning appears to be important.

Universities' e-library databases and information technology are considered an important aspect of e-learning, which enables students and researchers to access different resources around the globe. According to Alfantook and Bakry (2013), technology-enhanced innovation remains one of the major challenges in higher education, especially in Nigeria and similar developing countries. Hence, there is a need to integrate of ICT with traditional classroom based-teaching to improve the quality of teaching and learning in Nigerian HEIs. ICT provides numerous advantages to higher institutions, academics and students, and leads to successful research and all type of academic collaboration (Idogho, 2011). Christensen and Eyring (2011) suggest that HEIs that are reluctant to employ online learning activities will find it difficult to grow.

Nigerian HEIs need to provide both an e-library and blackboard as they offer numerous advantages over traditional libraries. These will enable students and researchers to be independent and autonomous and engage in deep learning. It is also more cost effective for HEIs compared to traditional texts books, of which there may be insufficient to meet the student demand. Adopting e-learning in Nigerian HEIs will help students and lecturers to access a wide variety of knowledge-based resources produced by different academics and experts in global HEIs. Hence, an adequate hybrid library (a traditional library and e-library) will increase the academic quality and performance in Nigerian HEIs. Hence, innovative HEIs that marry the benefits of on-campus experience with online learning are likely to find growth opportunities (Christensen and Eyring, 2011).

5.1.1 Experiential, practical learning and industrial attachments

The findings show that integrating experiential and practical learning within curriculum design and delivery is a crucial way to improve teaching and learning within Nigerian HEIs. This process involves linking the curriculum to the opportunities

and challenging problems that exist in society, both nationally and globally. Nigerian HEIs need to find ways to deepen the practical aspect of teaching and learning, research, and assessment of different disciplines, like the way in which medical students are trained. These findings support experiential and practical learning, such as apprenticeships, field work, industry attachments, and internships, that provides students with an opportunity to acquire skills in real-life scenarios with organisations or experienced professionals acting as their mentor (George Mason University; 2011; Loretto; 2011; Northern Illinois University OTC; 2011).

The findings suggest using case studies as an important aspect of experiential and practical learning. The fascinating thing about using case studies as a teaching technique is that they can serve as a substitute or alternative to laboratory, project-based learning and practical learning. This is because students tend to understand practical real-life scenarios through the use of case studies. The use of case studies as a teaching method enables students to reflect on their experiences both in the classroom and as part of the assessment process. Haynes (2007) and Davis (2011) noted that describing and analysing their experiences allows their students to relate these to their own future learning experiences. Reflecting involves students getting their peers to talk about their experience and share their reactions and observations during field work or in the classroom.

An effective way to use case studies as a teaching technique is to link curriculum to industry problems, entrepreneurship, and enterprise and employability education skills. In this sense, lecturers will be able to develop different case studies for teaching their students. Another effective method of experiential learning is to ask students to work as a group. The group work discussion approach enables students to learn how to solve real-life organisational problems as a team. Working as team of four or five in the classroom and/or off-campus equips students with an ability to know how to solve real-life organisational problems. Case studies are a substitute way for students to gain real-life experience without participating in real practical work.

To integrate experiential and practical learning techniques within curriculum design and delivery effectively, HEIs in Nigeria need to provide incentives to encourage industry practitioners and professionals to participate in designing and delivering the curriculum. These incentives can take many forms, such as doing research for companies and providing solutions to the challenges facing companies and businesses.

This will motivate professionals and business practitioners to participate in curriculum design and delivery. In this sense, students will be able to learn from theoretical and practical themes, and this will also provide an opportunity for lecturers to teach their courses using real-life problems and indigenous companies as case studies due to HEI-industry collaboration.

5.2 Curriculum innovation

The lack of innovation in Nigerian HEIs contributes to the major problems that exist regarding both the internal and external challenges that they face. According to Choudaha (2015), impediments to innovation in higher education can be found at the institutional as well as the national and regional levels. The findings reveal that curriculum innovation is crucial for HEIs, and so the innovative education curriculum should be driven by industrial needs and aimed at solving societal problems. The academic lecturers suggest that real-life projects and case studies are a crucial approach for curriculum innovation, while the students suggest that HEIs should make every discipline entrepreneurial and professional when designing and delivering the curriculum. Lecturers need to continue to be trained in strategies for researching and teaching their disciplines. This is because a lack of staff training and development has continued to reduce the quality of higher education in Nigeria (Asiyai and Oghuvbu, 2009; Ezepue, 2015).

The findings reveal that Nigerian HEIs need to collaborate with industry professionals and other stakeholders, such as designers, company managers, and government policy-makers, to create value-adding products and services based on innovative research and academic programmes. These findings are validated by university-business collaboration (UBC) research, that provides numerous opportunities, benefits and advantageous outcomes for both HEIs and businesses (Abramo et al., 2011; Crespo and Dridi, 2007; Perkmann et al., 2011; Schiller and Brimble, 2009).

Collaborating with industry will give HEIs a platform for effective industrial attachments and placements. There is a poor link between placements/industrial attachments and the core topics studied because of the lack of HEIs-industry collaboration. Hence, every Nigerian HEI needs to create a placement centre that will be responsible for finding students adequate placements and industrial attachments. This will help HEIs to determine exactly what industry wants and to provide industry with appropriate students. Most importantly, it will help to inform lecturers about how to embed professional and entrepreneurship skills into the curriculum, and also help students to gain employment after graduating, as their potential employers will already have witnessed their capability and potential. These findings are confirmed by Galan-Muros and Davey (2015), who argue that HEIs need to develop an alumni network that will aim to connect people in industry who have practical knowledge and experience to ensure that the final curriculum meets the business and community needs.

HEIs' innovation is a continuous process as it helps to increase the quality and quantity of what they do; for example, courses become more numerous and specialized, new degree programmes are created, new buildings are added and older ones

upgraded, and more qualified faculty members are appointed. These factors enable graduates to implement novel knowledge and skills in different fields, which in turn increases productivity in different industries, economic development, and the social welfare of the citizens. Hence, Nigerian policy-makers need innovative frameworks that will enable them to improve education in all its forms.

5.3 Entrepreneurial activities in HEIs

The findings reveal that Nigerian HEIs need to embed entrepreneurship across every discipline because this will provide numerous opportunities for HEIs, students and academics, and also have a massive impact on Nigerian socio-economic development. Entrepreneurship education is crucial for creating new companies and jobs, will improve innovation in every organisation (Fayolle, Gailly, and Lassas-Clerc, 2006), and will contribute immensely to socio-economic development (Lanero et al., 2011).

A lack of entrepreneurial capability within Nigerian HEIs appears to act as a barrier to the production of entrepreneurial graduates and other products and services apart from students, who are the main customer segment of HEIs. To promote entrepreneurship skills and training in Nigerian HEIs effectively, lecturers who partake in teaching entrepreneurship courses need be extensively retrained. It is important for all Nigerian lecturers to possess a basic knowledge of entrepreneurship education. This finding is similar to Lautenschlager and Hasse (2011), who found that the entrepreneurship skills that are currently taught in universities do not promote creativity, opportunities recognition, or problem-solving abilities, because they are delivered through theoretical teaching that ends up in a classroom-based learning.

Lima et al. (2015) found that teaching entrepreneurship skills within HEIs will not improve entrepreneurship education unless the institutions participate in entrepreneurship activities. HEI-industry collaboration is a crucial way to provide practical entrepreneurship activities that will enhance entrepreneurship education in HEIs. In this sense, Nigerian HEIs will be able to create primary knowledge across all discipline through designing and delivering an effective entrepreneurship curriculum. Students need to be involved when designing any form of curriculum because they know what they need for their professional development and career choice.

Entrepreneurship skills are essential skills needed within Nigerian HEIs, but many Nigerian students and graduates lack these, even though they are believed to be important skills in society as they help to promote economic development. This will help students and graduates to establish their own businesses and secure employment because they can make a positive impact on their employer's organisation. Interestingly, other unconventional skills, such as music, sports and tailoring and design, also need to be considered.

Nigeria HEIs need to create innovative specialist MSc/PhD programmes in entrepreneurship which will be bench-marked against the leading graduate programmes in entrepreneurship worldwide. In this sense, HEIs will be able to produce entrepreneurially-minded graduates who will be able to establish their own businesses and have a successful career in different industries after leaving university. Lima et al. (2015) found that an important way to improve entrepreneurship education is to train more lecturers in this field.

Taatala (2010) suggests that academically educated entrepreneurs will play a more important role in developing countries compared to entrepreneurs with a low level of education. However, there are also non-educated practical entrepreneurs who are very useful in society, as their business and companies can be employed as case studies when designing and delivering the curriculum. This type of entrepreneurs' companies can be used for students' placement and internships so that they may acquire experiential and practical learning.

5.3.1 HEIs' new offerings

There is need for higher education executives, directors, deans, HODs, and even individual academics to emulate innovative business managers in developing research-related products and services. This will enable HEIs to develop and offer new products and services to different customer segments, differentiated by customer needs. Searching for a different logic for a new value creation will help HEIs to develop new offerings that will create alternative and additional revenue models (Sund et al., 2016). To execute this correctly, executives require an ability to make companies resilient in the face of change and to create growth that is unbounded by the limits of existing businesses. The new offerings and HEIs' core services (students and research) must be carefully managed because using two business models simultaneously may mean that they contradict each other and the entire management process, if the existing service or product is unrelated (King, 2012).

To develop HEIs' new offerings, there is a need for HEIs to use academics with strong industry experience and/or relevant business or corporate academic research experience as the directors of the entrepreneurship centres. This will help HEI executives to rethink who their customers, suppliers, investors, and academic service delivery channels are, in addition to academics, students, and their parents/sponsors. This approach involves a process of defining the existing customers and going beyond the existing customer demand to create noncustomers in higher education (Kim and Mauborgne, 2014). HEIs have the capability to create offerings for different customer segments in adjacent markets, which will bring them an alternative revenue source and enable them to achieve excellent performance. This will make Nigerian HEIs less

dependent on government funding, and help them to build infrastructure and provide facilities to achieve the innovative higher education needed in the 21st century.

6. Conclusion

This paper explored business model innovation within the Nigerian higher education sector. The business model concept and business model innovation allow novel ideas to be introduced into Nigerian HEIs. Nigerian HEIs have faced challenges for a long time due to their inability to evaluate their existing higher education business models that were adopted from Europe and America. To achieve excellence in higher education effectively, Nigerian HEIs need to adopt business model innovation in order to transform their entire processes.

The new HEI business model needs to be contextualised and aligned with Nigerian socio-cultural and socio-economic development. It was found that Nigeria HEIs need to collaborate with indigenous industries, practitioners and professionals to co-design and co-deliver the curriculum. This will help lecturers to offer their students theory- and practice-based teaching. More important is the inclusion of all stakeholders in providing experiential learning and expanding its engagement with the wider community; for example, by establishing an industry/university collaboration program where the students could be given opportunities to visit industry or the various component heads would come into the universities to participate in annual lectures.

Adopting business model innovation is crucial as it will help Nigerian HEIs to create other revenue channels by exploring new value propositions. This will involve creating new products and services for different stakeholders and customer segments, and will also minimise the HEIs' dependency on government funding. Based on this insight, lecturers need to be reskilled in the corporate academic ways of working, including academic entrepreneurship and the ability to develop stimulating case studies garnered through intense engagement with stakeholders, clients, students, and government policy-makers through consulting, contract research and training projects. Similar training and business support services (business analysis and marketing research services) can be extended to businesses in Nigeria.

It becomes clear that employing online teaching techniques such as e-libraries, visual tools, blog discussions and YouTube will compliment traditional classroom-based teaching and learning, because students will spend extra time learning and interacting with each other when they are off-campus. Online learning techniques such as e-libraries and blackboard offer numerous advantages compared with traditional libraries. They enable students and researchers to engage in independent, autonomous and deep learning, and it is more cost-effective for HEIs compared to traditional texts

books, of which there may be an insufficient number to meet the student demand. This will help students and lecturers to access different resources produced by various academics and experts around the globe. Hence, an adequate hybrid library (a traditional library combined with an e-library) will increase the academic quality and performance in Nigerian HEIs.

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